

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (currently amended) A storage-stable, liquid, partially trimerized and allophanized polyisocyanate having an NCO group content of 15 to 41% by weight, and comprising the partial trimerization and allophanation product of:

(A) from 5 to 85% by weight of toluene diisocyanate having an isomer distribution of:

(1) from 60 to 100% by weight of the 2,4-isomer,
and

(2) from 0 to 40% by weight of the 2,6-isomer, with the sum of the %'s by weight of (A)(1) and (A)(2) totaling 100% by weight of (A);

and

(B) from 5 to 85% by weight of a polyisocyanate of the diphenylmethane series comprising ~~from~~:

(1) from 0 to 50% by weight of ~~higher functionality~~ polyisocyanates of the diphenylmethane series having an isocyanate functionality greater than 2,

(2) from 40 to 100% by weight of 4,4'-diphenylmethane diisocyanate,

(3) from 0 to 20% by weight of 2,4'-diphenylmethane diisocyanate,

and

(4) from 0 to 6% by weight of 2,2'-diphenylmethane diisocyanate,

with the sum of the %'s by weight of (B)(1), (B)(2), (B)(3) and (B)(4) totaling 100% by weight of (B);

and

- (C) from 0.1 to 10% by weight of an organic compound or mixture thereof containing from 1 to 4 hydroxyl groups capable of reacting with NCO groups and having a molecular weight of from 32 to 6000

wherein the sum of the %'s by weight of (A), (B) and (C) total 100% by weight.

2. (currently amended) A storage-stable, liquid, partially trimerized and allophanized polyisocyanate according to Claim 1, wherein the storage-stable, liquid, partially trimerized polyisocyanate composition has an NCO group content of about 17 to about 39% by weight, and comprises:

- (A) from 10 to 80% by weight of toluene diisocyanate having an isomer distribution of:
- (1) from 60 to 100% by weight of the 2,4-isomer,
and
- (2) from 0 to 40% by weight of the 2,6-isomer, with the sum of the %'s by weight of (A)(1) and (A)(2) totaling 100% by weight of (A);

and

- (B) from 10 to 80% by weight of a polyisocyanate of the diphenylmethane series comprising ~~from~~:
- (1) from 0 to 50% by weight of ~~higher functionality~~ polyisocyanates of the diphenylmethane series having an isocyanate functionality greater than 2,
- (2) from 40 to 100% by weight of 4,4'-diphenylmethane diisocyanate,
- (3) from 0 to 20% by weight of 2,4'-diphenylmethane diisocyanate,
- and
- (4) from 0 to 6% by weight of 2,2'-diphenylmethane diisocyanate,

with the sum of the %'s by weight of (B)(1), (B)(2), (B)(3) and (B)(4) totaling 100% by weight of (B);

and

(C) from 0.1 to 10% by weight of an organic compound or mixture thereof containing from 1 to 4 hydroxyl groups capable of reacting with NCO groups and having a molecular weight of from 32 to 6000;

wherein the sum of the %'s by weight of (A), (B) and (C) total 100% by weight.

3. (original) A storage-stable, liquid, partially trimerized and allophanized polyisocyanate according to Claim 1, wherein (C) is an aliphatic alcohol having from 1 to 36 carbon atoms or an aromatic alcohol having from 5 to 20 carbon atoms.

4. (original) A storage-stable, liquid, partially trimerized and allophanized polyisocyanate according to Claim 3, wherein (C) is chosen from at least one of methanol, ethanol, 1,2-ethanediol, 1-propanol, 2-propanol, 1-butanol, isobutyl alcohol, 2-butanol, n-amyl alcohol, sec-amyl alcohol, tert-amyl alcohol, 1-ethyl-1-propanol, n-hexanol and isomers thereof, n-octyl alcohol, 2-octyl alcohol, 2-ethyl-1-hexanol, n-decyl alcohol, n-dodecyl alcohol, neopentylglycol, n-tetradecyl alcohol, n-hexadecyl alcohol, n-octadecyl alcohol, 1,2 and 1,3-propanediol, 1,4-butanediol, 1,3-butanediol, 2,3-butanediol, 3-methyl-2-butanol, 3,3-dimethyl-1-butanol, 2-ethyl-1,3-hexanediol, glycerol, 1,2,4-butanetriol, pentaerythritol, diethylene glycol, dipropylene glycol, diethylene glycol, triethylene glycol and phenol.

5. (original) A storage-stable, liquid, partially trimerized and allophanized polyisocyanate according to Claim 4, wherein (C) is isobutyl alcohol.

6. (currently amended) A process for the preparation of a storage-stable, liquid, partially trimerized and allophanized polyisocyanate composition containing isocyanurate groups and having an NCO group content of about 15 to about 41% by weight, comprising:

(1) partially trimerizing and allophanizing:

(A) from 5 to 85% by weight of toluene diisocyanate having an isomer distribution of:

- (1) from 60 to 100% by weight of the 2,4-isomer,
and
- (2) from 0 to 40% by weight of the 2,6-isomer, with the sum
of the %'s by weight of (A)(1) and (A)(2) totaling 100% by weight
of (A);

and

- (B) from 5 to 85% by weight of a polyisocyanate of the diphenylmethane
series comprising from:
 - (1) from 0 to 50% by weight of ~~higher functionality~~
polyisocyanates of the diphenylmethane series having an
isocyanate functionality greater than 2,
 - (2) from 40 to 100% by weight of 4,4'-diphenylmethane
diisocyanate,
 - (3) from 0 to 20% by weight of 2,4'-diphenylmethane
diisocyanate,
- and
- (4) from 0 to 6% by weight of 2,2'-diphenylmethane
diisocyanate,
- with the sum of the %'s by weight of (B)(1), (B)(2), (B)(3) and
(B)(4) totaling 100% by weight of (B);

and

- (C) from 0.1 to 10% by weight of an organic compound or mixture thereof
containing from 1 to 4 hydroxyl groups capable of reacting with
NCO groups and having a molecular weight of from 32 to 6000;
wherein the sum of the %'s by weight of (A), (B) and (C) total 100% by
weight.

in the presence of:

- (C) at least one trimerization catalyst and optionally at least one
allophanation catalyst,
followed by the addition of:
- (D) an acidic stopper.

7. (currently amended) The process of Claim 6, wherein the storage-stable, liquid, partially trimerized and allophanized polyisocyanate composition has an NCO group content of about 17 to about 39% by weight, and comprises:

- (A) from 10 to 80% by weight of toluene diisocyanate having an isomer distribution of:
 - (1) from 60 to 100% by weight of the 2,4-isomer, and
 - (2) from 0 to 40% by weight of the 2,6-isomer, with the sum of the %'s by weight of (A)(1) and (A)(2) totaling 100% by weight of (A);

and

- (B) from 10 to 80% by weight of a polyisocyanate of the diphenylmethane series comprising ~~from~~:
 - (1) from 0 to 50% by weight of higher functionality polyisocyanates of the diphenylmethane series having an isocyanate functionality greater than 2,
 - (2) from 40 to 100% by weight of 4,4'-diphenylmethane diisocyanate,
 - (3) from 0 to 20% by weight of 2,4'-diphenylmethane diisocyanate,and
 - (4) from 0 to 6% by weight of 2,2'-diphenylmethane diisocyanate,

with the sum of the %'s by weight of (B)(1), (B)(2), (B)(3) and (B)(4) totaling 100% by weight of (B);

and

- (C) from 0.1 to 10% by weight of an organic compound or mixture thereof containing from 1 to 4 hydroxyl groups capable of reacting with NCO groups and having a molecular weight of from 32 to 6000

wherein the sum of the %'s by weight of (A), (B) and (C) total 100% by weight.

8. (original) A process according to Claim 6, wherein (C) is an aliphatic alcohol having from 1 to 36 carbon atoms or an aromatic alcohol having from 5 to 20 carbon atoms.

9. (original) A process according to Claim 8, wherein (C) is chosen from at least one of methanol, ethanol, 1,2-ethanediol, 1-propanol, 2-propanol, 1-butanol, isobutyl alcohol, 2-butanol, n-amyl alcohol, sec-amyl alcohol, tert-amyl alcohol, 1-ethyl-1-propanol, n-hexanol and isomers thereof, n-octyl alcohol, 2-octyl alcohol, 2-ethyl-1-hexanol, n-decyl alcohol, n-dodecyl alcohol, neopentylglycol, n-tetradecyl alcohol, n-hexadecyl alcohol, n-octadecyl alcohol, 1,2 and 1,3-propanediol, 1,4-butanediol, 1,3-butanediol, 2,3-butanediol, 3-methyl-2-butanol, 3,3-dimethyl-1-butanol, 2-ethyl-1,3-hexanediol, glycerol, 1,2,4-butanetriol, pentaerythritol, diethylene glycol, dipropylene glycol, diethylene glycol, triethylene glycol and phenol.

10. (original) A process according to Claim 9, wherein (C) is isobutyl alcohol.

11. (cancelled)

12. (cancelled)

13. (cancelled)

14. (cancelled)

15. (cancelled)

16. (cancelled)

17. (cancelled)

18. (cancelled)

19. (currently amended) A process for preparing a storage-stable, liquid, partially trimerized and allophanized polyisocyanate composition containing isocyanurate groups and having an NCO group content of about 15 to about 41% by weight, comprising:

(1) partially trimerizing and allophanizing:

(A) from 5 to 85% by weight of toluene diisocyanate having an isomer distribution of:

(1) from 60 to 100% by weight of the 2,4-isomer,

and

- (2) from 0 to 40% by weight of the 2,6-isomer, with the sum of the %'s by weight of (A)(1) and (A)(2) totaling 100% by weight of (A);

and

- (B) from 5 to 85% by weight of a polyisocyanate of the diphenylmethane series comprising ~~from~~:

- (1) from 0 to 50% by weight of ~~higher functionality~~ polyisocyanates of the diphenylmethane series having an isocyanate functionality greater than 2,
- (2) from 40 to 100% by weight of 4,4'-diphenylmethane diisocyanate,
- (3) from 0 to 20% by weight of 2,4'-diphenylmethane diisocyanate,

and

- (4) from 0 to 6% by weight of 2,2'-diphenylmethane diisocyanate,

with the sum of the %'s by weight of (B)(1), (B)(2), (B)(3) and (B)(4) totaling 100% by weight of (B);

and

- (C) from 0.1 to 10% by weight of an organic compound or mixture thereof containing from 1 to 4 hydroxyl groups capable of reacting with NCO groups and having a molecular weight of from 32 to 6000;

wherein the sum of the %'s by weight of (A), (B) and (C) total 100% by weight;

in the presence of:

- (C) at least one trimerization catalyst and optionally at least one allophanation catalyst,

followed by the addition of:

- (D) an acidic stopper; and

(2) blending

(E) a polyisocyanate of the diphenylmethane series comprising ~~from~~:

(1) from 0 to 50% by weight, based on total weight of (E), of higher functionality polyisocyanates of the diphenylmethane series having an isocyanate functionality greater than 2,

(2) from 30 to 60% by weight, based on total weight of (E), of 4,4'-MDI,

(3) from 3 to 60% by weight, based on total weight of (E), of 2,4'-MDI; and

(4) from 0 to 6% by weight, based on total weight of (E), of 2,2'-MDI; or

(F) a uretonimine modified polyisocyanates of the diphenylmethane series comprising ~~from~~:

(1) from 34 to 100% by weight, based on total weight of (F), of 4,4'-MDI,

(2) from 0 to 60% by weight, based on total weight of (F), of 2,4'-MDI, and

(3) from 0 to 6% by weight, based on total weight of (F), of 2,2'-MDI.